

(ii) The identification number of the Class II gaming system component or the player interface number, as applicable;

(iii) Date and time of issuance;

(iv) Alpha and numeric dollar amount;

(v) A sequence number;

(vi) A validation number that:

(A) Is produced by a means specifically designed to prevent repetition of validation numbers; and

(B) Has some form of checkcode or other form of information redundancy to prevent prediction of subsequent validation numbers without knowledge of the checkcode algorithm and parameters;

(vii) For machine-readable vouchers and coupons, a bar code or other form of machine readable representation of the validation number, which must have enough redundancy and error checking to ensure that 99.9% of all misreads are flagged as errors;

(viii) Transaction type or other method of differentiating voucher and coupon types; and

(ix) Expiration period or date.

(6) Transfers from an account may not exceed the balance of that account.

(7) For Class II gaming systems not using dollars and cents accounting and not having odd cents accounting, the Class II gaming system must reject any transfers from voucher systems or cashless systems that are not even multiples of the Class II gaming system denomination.

(8) Voucher systems must include the ability to report redemptions per redemption location or user.

**§ 547.12 What are the minimum technical standards for downloading on a Class II gaming system?**

(a) *Downloads.* (1) Downloads are an acceptable means of transporting approved content, including, but not limited to software, files, data, and prize schedules.

(2) Downloads must use secure methodologies that will deliver the download data without alteration or modification, in accordance with § 547.15(a).

(3) Downloads conducted during operational periods must be performed in a manner that will not affect game play.

(4) Downloads must not affect the integrity of accounting data.

(5) The Class II gaming system must be capable of providing:

(i) The time and date of the initiation of the download;

(ii) The time and date of the completion of the download;

(iii) The Class II gaming system components to which software was downloaded;

(iv) The version(s) of download package and any software downloaded. Logging of the unique software signature will satisfy this requirement;

(v) The outcome of any software verification following the download (success or failure); and

(vi) The name and identification number, or other unique identifier, of any individual(s) conducting or scheduling a download.

(b) *Verifying downloads.* Downloaded software on a Class II gaming system must be capable of being verified by the Class II gaming system using a software signature verification method that meets the requirements of § 547.8(f).

**§ 547.13 What are the minimum technical standards for program storage media?**

(a) *Removable program storage media.* All removable program storage media must maintain an internal checksum or signature of its contents. Verification of this checksum or signature is to be performed after every restart. If the verification fails, the affected Class II gaming system component(s) must lock up and enter a fault state.

(b) *Nonrewritable program storage media.* (1) All EPROMs and Programmable Logic Devices that have erasure windows must be fitted with covers over their erasure windows.

(2) All unused areas of EPROMs must be written with the inverse of the erased state (zero bits (00 hex) for most EPROMs), random data, or repeats of the program data.

(3) Flash memory storage components intended to have the same logical function as ROM, must be write-protected or otherwise protected from unauthorized modification.